

REMARKS

This Response is submitted in response to the Final Office Action dated February 8, 2007. Claim 36 has been amended. Claims 47-50 have been newly added. A Request for Continued Examination (RCE) has been filed with this amendment. No new matter is added.

35 USC §103 Rejections

The Office Action rejects Claims 36-39 and 41-43 under 35 USC §103 as being unpatentable over PCT Publication No. WO02/08463 as evidenced by corresponding patent Hayashi (US Patent No. 6,872,635) in view of Nakamura (US Patent No. 5,426,342). Applicants respectfully disagree and traverse such rejections.

As noted above, independent Claim 36 has been amended. Claim 36 now reads in relevant part, “A device transfer method comprising: embedding one-side devices into a pressure sensitive adhesive layer provided on a second substrate; embedding other-side devices arranged on a first substrate into the pressure sensitive adhesive layer provided on the second substrate wherein the other-side devices and one-side devices are light emitting diodes having different characteristics; and stripping the other-side devices from the first substrate thereby holding the other-side devices in an embedded states in the pressure sensitive adhesive layer.”

The amendments are fully supported in the specification. For example, please see the specification on page 21-22 and Figures 13(A)-13(C) describing the transfer of red, blue and green color diodes.

Applicants respectfully submit that the Nakamura teaches away from combining with Hayashi. Combining the pressure sensitive material of Nakamura with Hayashi would result in a process that would not transfer the multiple diodes. See Hayashi on page 6, paragraph 111 stating in relevant part, “After the temporarily holding substrate 4 is superimposed to the transfer substrate 6, the adhesive layer 7 is partially irradiated with laser beams L from the back surface side of the transfer substrate 6, to selectively soften the adhesively layer 7, and then selectively softened adhesive layer 8 is cooled to be cured.” The adhesive layer in Hayashi is heated to soften the layer and allow diodes to adhere. Each set of devices embedded into the adhesive layer of Hayashi require a heating a cooling step, see Hayashi in the abstract stating, “The

method includes steps of selectively heating the adhesive resin layer on the second substrate by laser irradiation from the back surface side of the second substrate, and curing the selectively heated portions of the adhesive resin layer, thereby adhesively bonding those to be transferred of the devices to the second substrate.”

Conversely, heating the pressure sensitive material of Nakamura causes it to harden and cure and would not allow for additional devices to be embedded. See Nakamura in column 4, lines 54-58 stating, “The transfer material thus constructed is pressed on a side of the adhesive layer 5 thereof against the substrate 8 on which the anode 7 and phosphor layer 6 are laminated in turn, and subject to transfer while being heated under pressure.” If the adhesive layer 7 of Hayashi were replaced with the pressure sensitive material of Nakamura, the irradiation would cause the material to harden and not allow embedding other devices into the pressure sensitive material.

See also the specification on page 22 stating , “After the plurality of kinds of devices are thus embedded in the pressure sensitive adhesive layer 35, in the condition where the devices 33R, 33G, 33B are held embedded in the pressure sensitive adhesive layer 35, an external cause for hardening (curing) the pressure sensitive adhesive layer 35,” where the pressure sensitive material is heated after embedding the devices.

For at least the foregoing reasons, Applicants respectfully submit that Claims 36 and 41, and Claims 37-39 and 42-46 that depend therefrom are in condition for allowance.

New Claims

Claims 47-50 have been newly added.

Claim 47 reads, “The device transfer method as set forth in claim 36, further comprising bringing the devices into contact with a temporary adhesion layer provided on the first substrate for temporarily adhering the devices to the temporary adhesion layer thereby arranging the devices on the first substrate, before embedding the other-side devices into the pressure sensitive adhesive layer.”

The new claim is fully supported by the specification. For example, see page 22 stating, "The devices 33R are arranged on a temporary adhesion layer formed on a temporary holding substrate."

Claim 48 reads, "The device transfer method as set forth in claim 47, wherein a tack of the pressure sensitive adhesive layer provided on the second substrate is greater than a tack of the temporary adhesion layer provided on the first substrate."

The new claim is fully supported by the specification. For example, see the specification on page 6 stating, "Where the tack of the pressure sensitive adhesive layer provided on the second substrate is greater than the tack of the temporary adhesion layer provided on the first substrate or where the tack of the pressure sensitive adhesive layer or the temporary adhesion layer is changed so that the tack of the pressure sensitive adhesive layer will be greater than the tack of the temporary adhesion layer."

Claim 49 reads, "The device transfer method as set forth in claim 48, wherein the tack of at least one of the pressure sensitive adhesive layer and the temporary adhesion layer is changed so that the tack of the pressure sensitive adhesive layer will be greater than the tack of the temporary adhesion layer."

The new claim is fully supported by the specification. For example, see the specification on page 6 stating, "Where the tack of the pressure sensitive adhesive layer provided on the second substrate is greater than the tack of the temporary adhesion layer provided on the first substrate or where the tack of the pressure sensitive adhesive layer or the temporary adhesion layer is changed so that the tack of the pressure sensitive adhesive layer will be greater than the tack of the temporary adhesion layer."

Claim 50 reads, "The device transfer method as set forth in claim 36, further comprising curing the pressure sensitive adhesive layer using a heating treatment."


The new claim is fully supported by the specification. For example, see the specification on page 22 stating, "an external cause for hardening (curing) the pressure sensitive adhesive

layer 35, for example, a heating treatment or the like is applied to harden (cure) the pressure sensitive adhesive layer.”

The Commissioner is hereby authorized to charge deposit account 02-1818 for any fees which are due and owing.

Respectfully submitted,

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